March 12, 2003 Certified Mail #: 9058 7746

E. L. Fillinger
President
Southern Electric Coil, Inc.
5025 Columbia Avenue
Hammond, Indiana 46320

Dear Mr. Fillinger

Re: Exempt Operation Status, 089-16634-00240

The application from Southern Electric Coil, Inc. received on January 3, 2003, has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-1.1-3, it has been determined that the following Electric Coil Facility to be located at 5025 Columbia Avenue, Hammond, Indiana, is classified as exempt from air pollution permit requirements:

(a) Young Brothers Bake Oven, identified as Armature/Stator Process, with a maximum capacity of 0.618 MMBtu/hr heat input, burning natural gas only, and venting emissions without controls through the process stack.

(b) Despatch oven incinerator, with a maximum capacity of 1.0 MMBtu/hr heat input, maximum burn-off rate of 17 lbs/hr, using natural gas only, and venting emissions uncontrolled through the process stack.

(c) Michigan Bake Oven, identified as Field Coil Production Process, with a maximum capacity of 0.618 MMBtu/hr heat input, burning natural gas only, and venting emissions without controls through the process stack.

(d) IHEI Curing Oven, identified as Mica Lastic Process, with a maximum capacity of 1.6 MMBtu/hr heat input, maximum curing rate of 1 copper bar per hour and 1.25 form-wound stator coils per hour, using natural gas only, and venting emissions without controls through the process stack.

The following conditions shall be applicable:

(1) Pursuant to 326 IAC 5-1-2 (Opacity Limitations) except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following:

(a) Opacity shall not exceed an average of twenty percent (20%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of 15 minutes (60 readings) in a 6-hour period as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor in a six (6) hour period.

(2) Pursuant to 326 IAC 6-3-2, the particulate from the Tinning Pot shall be limited by the following:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$

where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour (0.0375 T/hr)

The emission limit is calculated to be 0.45 pounds per hour, which is greater than the potentials before controls. Since this limit can be met without controls, the tinning pot will be limited by Hammond Air Quality Control Ordinance # 3522 (as amended) to the potentials after controls.

(3) Pursuant to 326 IAC 4-2-2 All incinerators shall comply with the following requirements:
(1) Consist of primary and secondary chambers or the equivalent.
(2) Be equipped with a primary burner unless burning only wood products.
(3) Comply with 326 IAC 5-1 and 326 IAC 2.
(4) Be maintained, operated, and burn waste in accordance with the manufacturer's specifications
(5) Not emit particulate matter in excess of the following:
Three-tenths (0.3) pound of particulate matter per one thousand (1,000) pounds of dry exhaust gas under standard conditions corrected to fifty percent (50%) excess air for incinerators with solid waste capacity two hundred (200) pounds per hour and greater.
(6) If any of the requirements of subdivisions (1) through (5) are not met, then the owner or operator shall stop charging the incinerator until adjustments are made that address the underlying cause of the deviation.

(4) Pursuant to Hammond Air Quality Control Ordinance 3522 (as amended), the source will be required to annually submit a statement of the actual emissions of all federally regulated pollutants from the source, for the purpose of source classification.

This exemption is the first air approval issued to this source, on a State level.

An application or notification shall be submitted in accordance with 326 IAC 2 and the Hammond Air Quality Control Ordinance #3522 (as amended), if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source.

Sincerely,

Ronald Novak, Director
Hammond Department of Environmental Management

KM

cc: Permit Administrator – Mindy Hahn

Indiana Department of Environmental Management
Office of Air Quality
and
Hammond Department of Environmental Management
Air Pollution Control Division

Technical Support Document (TSD) for an Exemption

Source Background and Description

Source Name:	Southern Electric Coil, Inc.
Source Location:	5025 Columbia Avenue
County:	Lake County
SIC Code:	3677 and 3629
Operation Permit No.:	089-16634-00240
Permit Reviewer:	Kristina Massey

The Hammond Department of Environmental Management (HDEM) has reviewed an application from Southern Electric Coil relating to the operation of an Electric Coil Facility, which includes industrial ovens used to cure or burn off insulating material and a tinning pot to tin copper leads. The source has been operating as a Registered source under local Operation Permits. Upon this review process, it has been determined that the source is no longer a registered source, and has been re-designated as an exempt source. The reason for the decrease in potential to emit is a change in emission factors based on stack test results for the Despatch oven/incinerator, instead of the generic emission factor in FIREs.

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units and pollution control devices:

(a) Young Brothers Bake Oven, identified as Armature/Stator Process, with a maximum capacity of 0.618 MMBtu/hr heat input, burning natural gas only, and venting emissions without controls through the process stack.

(b) Despatch oven incinerator, with a maximum capacity of 1.0 MMBtu/hr heat input, maximum burn-off rate of 17 lbs/hr, using natural gas only, and venting emissions uncontrolled through the process stack.

(c) Michigan Bake Oven, identified as Field Coil Production Process, with a maximum capacity of 0.618 MMBtu/hr heat input, burning natural gas only, and venting emissions without controls through the process stack.

(d) IHEI Curing Oven, identified as Mica Lastic Process, with a maximum capacity of 1.6 MMBtu/hr heat input, maximum curing rate of 1 copper bar per hour and 1.25 form-wound stator coils per hour, using natural gas only, and venting emissions without controls through the process stack.

(e) Tinning Pot, with a maximum capacity of 75 pounds, and design rate of 25 units/hour, particulate emissions are controlled by a Torit Dust collector, and vent through the process stack.

Unpermitted Emission Units and Pollution Control Equipment

There are no unpermitted facilities operating at this source during this review process.

Existing Approvals

The source has been operating under previous approvals including, but not limited to, the following:

(a) OP 02010 issued on 2/1/02;

(b) OP 02011 issued on 2/1/02;

(c) OP 02012 issued on 2/1/02;

(d) OP 02013 issued on 2/1/02; and

(e) OP 02014 issued on 2/1/02.

All conditions from previous approvals were incorporated into this permit.

Stack Summary

Stack ID (Operation)	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (^{0}F)
Despatch Oven Incinerator	20	1.2	1988	443
Michigan Bake Oven	23	0.5	500	250
Young Brothers Bake Oven	18	0.5	500	250
IHEI Curing Oven	22	1.5	600	180
Tinning Pot	28	2	2200	85

Enforcement Issue

There are no enforcement actions pending.

Recommendation

The staff recommends to the Commissioner that the operation be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

A complete application for the purposes of this review was received on January 2, 2003.

Emission Calculations

See Appendix A of this document for detailed emissions calculations (seven (7) pages).

Potential To Emit

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant,

including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, the department, or the appropriate local air pollution control agency."

Pollutant	Potential To Emit (tons/year)
PM	3.272
PM-10	3.001
SO_2	0.488
VOC	2.917
CO	1.573
NO_x	1.891

The potential to emit (as defined in 326 IAC 2-7-1(29)) of all criteria pollutants is less than 100 tons per year and VOC in Lake County is less than 25 tons per year. Therefore, the source is not subject to the provisions of 326 IAC 2-7. Furthermore, the potential to emit of all criteria pollutants is less than 5 tons per year, therefore, the source is not subject to the provisions of 326 IAC 2-5. Pursuant to Hammond Air Quality Control Ordinance # 3522 (as amended) the source will be issued a local operation permit along with the State's exemption letter.

Actual Emissions

The following table shows the actual emissions from the source. This information reflects the 2001 HDEM emission data.

Pollutant	Actual Emissions (tons/year)
PM	0.0040
PM-10	0.0040
SO_2	0.0092
VOC	0.0006
CO	0.0024
NO_x	0.0032
HAP (specify)	0

County Attainment Status

The source is located in Lake County.

Pollutant	Status
PM-10	Moderate nonattainment
SO_2	Primary nonattainment
NO_2	Attainment/unclassifiable
Ozone	Severe nonattainment
CO	Attainment/unclassifiable
Lead	Attainment/unclassifiable

(a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Lake County has been designated as nonattainment for ozone. Therefore, VOC emissions were reviewed pursuant to the requirements for Emission Offset, 326 IAC 2-3.

(b) Lake County has been classified as nonattainment for PM-10. Therefore, these emissions were reviewed pursuant to the requirements for Emission Offset, 326 IAC 2-3.

Source Status

Existing Source PSD, Part 70 or FESOP Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity and/ or as otherwise limited):

Pollutant	Emissions (ton/yr)
PM	3.1676
PM10	2.9324
SO_2	0.4875
VOC	2.9173
CO	1.5727
NO_x	1.8912

(a) This existing source is **not** a major stationary source because no attainment regulated pollutant is emitted at a rate of 250 tons per year or more, and it is not in one of the 28 listed source categories.

(b) This existing source is **not** a major stationary source because no nonattainment regulated pollutant is emitted at a rate of 100 tons per year, and VOC less than 10 tons per year in Lake County and it is not in one of the 28 listed source categories.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This existing source, including the emissions from this permit, is still not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

(a) each criteria pollutant is less than 100 tons per year,
(b) a single hazardous air pollutant (HAP) is less than 10 tons per year, and
(c) any combination of HAPs is less than 25 tons/year.

This status is based on all the air approvals issued to the source. This status has been verified by the HDEM.

Federal Rule Applicability

(a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this source.

(b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR Part 63) applicable to this source.

State Rule Applicability - Entire Source

326 IAC 2-6 (Emission Reporting)

This source is located in Lake County and the potential to emit VOC and NO_X is less than ten (10) tons per year. The source is not one of the twenty-eight (28) listed sources and its potential to emit PM10 is less than one-hundred (100) tons per year including fugitive emissions, therefore, 326 IAC 2-6 does not apply.

Pursuant to Hammond Air Quality Control Ordinance 3522 (as amended), the source will be required to annually submit a statement of the actual emissions of all federally regulated pollutants from the source, for the purpose of source classification.

326 IAC 5-1 (Opacity Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of twenty percent (20%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

State Rule Applicability - Individual Facilities

326 IAC 6-3-2 (Process Operations)

Pursuant to 326 IAC 6-3-2, the particulate from the Tinning Pot shall be limited by the following:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10 P^{0.67}$

where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour (0.0375 T/hr)

The emission limit is calculated to be 0.45 pounds per hour, which is greater than the potentials before controls. Since this limit can be met without controls, the tinning pot will be limited by Hammond Air Quality Control Ordinance # 3522 (as amended) to the potentials after controls.

326 IAC 4-2-2 (Incinerators)

Pursuant to 326 IAC 4-2-2 All incinerators shall comply with the following requirements:

(1) Consist of primary and secondary chambers or the equivalent.
(2) Be equipped with a primary burner unless burning only wood products.
(3) Comply with 326 IAC 5-1 and 326 IAC 2.
(4) Be maintained, operated, and burn waste in accordance with the manufacturer's specifications
(5) Not emit particulate matter in excess of the following:
Five-tenths (0.5) pound of particulate matter per one thousand (1,000) pounds of dry exhaust gas under standard conditions corrected to fifty percent (50%) excess air for incinerators with solid waste capacity less than two hundred (200) pounds per hour.
(6) If any of the requirements of subdivisions (1) through (5) are not met, then the owner or operator shall stop charging the incinerator until adjustments are made that address the underlying cause of the deviation.

Conclusion

The operation of this Electric Coil Facility shall be subject to the conditions of the attached proposed Exemption Letter and Local Operation Permit.

Southern Electric Coil

ALABAMA POWER LAW (CDS)/EIS CALCULATIONS

Southern Electric Company
Siemens Power Corporation Division
5025 Columbia Avenue
Hammond, IN 46320

PLANT ID NO: 00240
INSP DATE: 7/16/01
CALC DATE: 3/12/03

CALCULATIONS BY: Kristina Massey

YEAR OF DATA: **REVIEW**

NO. OF POINTS: 6

NOTES
EF: EMISSION FACTOR
CE: CONTROL EFFICIENCY
MDR: MAXIMUM DESIGN RATE
MDC: MAXIMUM DESIGN CAPACITY
Ts: STACK DISCHARGE TEMPERATURE
UNITS FOR EMISSIONS ARE IN (TPY) EXCEPT WHERE GIVEN

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POINT ID: Despatch Oven Incinerator

MDR (T/hr): 0.0085
YEARLY PROD (T/yr): 1.44
STACK ID (DIAM:HEIGHT): (1.2': 20')
FLOWRATE (ACFM): 1988
Ts(°F): 443

CNTRL DEV: top mounted fume incinerator

PERMITTED OPERATING HRS: **8760** hr/yr

			POTENTIAL EMISSIONS						COMPANY ACTUAL	
SCC NO. 3-04-002-08			BEFORE CONTROLS			AFTER CONTROLS			BEFORE	AFTER
POLLUTANT	EF(LB/T)	CE (%)	(lbs/hr)	(lbs/day)	(TPY)	(lbs/hr)	(TPY)	(gr/dscf)	CONTROLS	CONTROLS
PM	3.08	0	0.0262	0.6283	0.1147	0.0262	0.1147	0.0026	0.0022	0.0022
PM10	3.08	0	0.0262	0.6283	0.1147	0.0262	0.1147	0.0026	0.0022	0.0022
SOx	12.8	0	0.1088	2.6112	0.4765	0.1088	0.4765	N/A	0.0092	0.0092
NOx	1.7	0	0.0145	0.3468	0.0633	0.0145	0.0633	N/A	0.0012	0.0012
VOC	0.6	0	0.0051	0.1224	0.0223	0.0051	0.0223	N/A	0.0004	0.0004
CO	1	0	0.0085	0.2040	0.0372	0.0085	0.0372	N/A	0.0007	0.0007
LEAD	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0.0000	0.0000

EF for PM & PM10 based on stack test information
One burner operates the oven and incinerator, therefore no control efficiency was taken into account since the control device is an integral part of the process
The fumes from the incinerator are burned to provide the heat for the oven.

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POINT ID: Despatch Oven Incinerator

in-process fuel use

MDC (mmBtu/hr): 1 | MDR (mmcft/hr): 0.0010 | HEAT CONTENT (Btu/cft): 1050 | QTY BURNED (mmcft/yr): 0.013 | STACK ID (DIAM:HEIGHT): (1.2': 20') | FLOWRATE (ACFM): 1988 | Ts(°F): 443

PERMITTED OPERATING HRS: **8760** hr/yr

SCC NO. 3-90-006-89

			POTENTIAL EMISSIONS							COMPANY ACTUAL	
			BEFORE CONTROLS			AFTER CONTROLS				BEFORE	AFTER
POLLUTANT	EF(lbs/mmcft)	CE (%)	(lbs/hr)	(lbs/day)	(TPY)	(lbs/hr)	(TPY)	(gr/dscf)		CONTROLS	CONTROLS
PM	7.6	0	0.0072	0.1737	0.0317	0.0072	0.0317	0.0007		0.0000	0.0000
PM10	7.6	0	0.0072	0.1737	0.0317	0.0072	0.0317	0.0007	ACFM = 1988	0.0000	0.0000
SOx	0.6	0	0.0006	0.0137	0.0025	0.0006	0.0025	N/A	DSCFM = (530*ACFM) /	0.0000	0.0000
NOx	100	0	0.0952	2.2857	0.4171	0.0952	0.4171	N/A	(460+Ts) = 1166.8	0.0006	0.0006
VOC	5.5	0	0.0052	0.1257	0.0229	0.0052	0.0229	N/A	1 lb = 12.38 cft air	0.0000	0.0000
CO	84	0	0.0800	1.9200	0.3504	0.0800	0.3504	N/A	1166.8/12.38 = 94.25	0.0005	0.0005
LEAD	0.0005	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	94.25 lbs/min = 5655 lb/hr	0.0000	0.0000
									0.5*5655/1000 = 2.8275		

Despatch Oven Incinerator **Point Totals**

326 IAC 4-2-2 (8) (B)

	POTENTIAL EMISSIONS						ALLOWABLE		COMPANY ACTUAL	
	BEFORE CONTROLS			AFTER CONTROLS					BEFORE	AFTER
POLLUTANT	(lbs/hr)	(lbs/day)	**(TPY)**	(lbs/hr)	(TPY)	(gr/dscf)	(lbs/hr)	(TPY)	CONTROLS	CONTROLS
PM	0.0334	0.8020	**0.1464**	0.0334	0.1464	0.0033	0.0334	0.1464	0.0023	0.0023
PM10	0.0334	0.8020	**0.1464**	0.0334	0.1464	0.0033	0.0334	0.1464	0.0023	0.0023
SOx	0.1094	2.6249	**0.4790**	0.1094	0.4790	#VALUE!	0.1094	0.4790	0.0092	0.0092
NOx	0.1097	2.6325	**0.4804**	0.1097	0.4804	#VALUE!	0.1097	0.4804	0.0019	0.0019
VOC	0.0103	0.2481	**0.0453**	0.0103	0.0453	#VALUE!	0.0103	0.0453	0.0005	0.0005
CO	0.0885	2.1240	**0.3876**	0.0885	0.3876	#VALUE!	0.0885	0.3876	0.0013	0.0013
LEAD	0.0000	0.0000	**0.0000**	0.0000	0.0000	#VALUE!	0.0000	0.0000	0.0000	0.0000

Hammond Air Quality Control Ordinance #3522 (as amended)

326 IAC 4-2-2(8)(B) is less stringent than HAQC # 3522

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POINT ID: Field Coil Production Process
Michigan Bake Oven

MDR (T/hr): 0.025
YEARLY PROD (T/yr): 0.33

STACK ID (DIAM:HEIGHT): (0.5': 23')
FLOWRATE (ACFM): 500
Ts(°F): 250

CNTRL DEV: none

PERMITTED OPERATING HRS: **8760** hr/yr

SCC NO. 3-04-002-14

			POTENTIAL EMISSIONS						COMPANY ACTUAL	
			BEFORE CONTROLS			AFTER CONTROLS			BEFORE	AFTER
POLLUTANT	EF(LB/T)	CE (%)	(lbs/hr)	(lbs/day)	(TPY)	(lbs/hr)	(TPY)	(gr/dscf)	CONTROLS	CONTROLS
PM	5.1	0	0.1275	3.0600	0.5585	0.1275	0.5585	0.0399	0.0008	0.0008
PM10	5.1	0	0.1275	3.0600	0.5585	0.1275	0.5585	0.0399	0.0008	0.0008
SOx	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0.0000	0.0000
NOx	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0.0000	0.0000
VOC	0.2	0	0.0050	0.1200	0.0219	0.0050	0.0219	N/A	0.0000	0.0000
CO	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0.0000	0.0000
LEAD	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0.0000	0.0000

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POINT ID: Field Coil Production Process
Michigan Bake Oven
in-process fuel use

MDC (mmBtu/hr): 0.618
MDR (mmcft/hr): 0.0006

HEAT CONTENT (Btu/cft): 1050
QTY BURNED (mmcft/yr): 0.013

STACK ID (DIAM:HEIGHT): (0.5': 23')
FLOWRATE (ACFM): 500
Ts(°F): 250

PERMITTED OPERATING HRS: **8760** hr/yr

SCC NO. 3-90-006-89

			POTENTIAL EMISSIONS						COMPANY ACTUAL	
			BEFORE CONTROLS			AFTER CONTROLS			BEFORE	AFTER
POLLUTANT	EF(lbs/mmcft)	CE (%)	(lbs/hr)	(lbs/day)	(TPY)	(lbs/hr)	(TPY)	(gr/dscf)	CONTROLS	CONTROLS
PM	7.6	0	0.0045	0.1074	0.0196	0.0045	0.0196	0.0014	0.0000	0.0000
PM10	7.6	0	0.0045	0.1074	0.0196	0.0045	0.0196	0.0014	0.0000	0.0000
SOx	0.6	0	0.0004	0.0085	0.0015	0.0004	0.0015	N/A	0.0000	0.0000
NOx	100	0	0.0589	1.4126	0.2578	0.0589	0.2578	N/A	0.0006	0.0006
VOC	5.5	0	0.0032	0.0777	0.0142	0.0032	0.0142	N/A	0.0000	0.0000
CO	84	0	0.0494	1.1866	0.2165	0.0494	0.2165	N/A	0.0005	0.0005
LEAD	0.0005	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0.0000	0.0000

Field Coil Production Process — **Point Totals**
Michigan Bake Oven

Hammond Air Quality Control Ordinance #3522 (as amended)

	POTENTIAL EMISSIONS						ALLOWABLE		COMPANY ACTUAL	
	BEFORE CONTROLS			AFTER CONTROLS					BEFORE	AFTER
POLLUTANT	(lbs/hr)	(lbs/day)	**(TPY)**	(lbs/hr)	(TPY)	(gr/dscf)	(lbs/hr)	(TPY)	CONTROLS	CONTROLS
PM	0.1320	3.1674	**0.5780**	0.1320	0.5780	0.0413	0.1320	0.5780	0.0009	0.0009
PM10	0.1320	3.1674	**0.5780**	0.1320	0.5780	0.0413	0.1320	0.5780	0.0009	0.0009
SOx	0.0004	0.0085	**0.0015**	0.0004	0.0015	#VALUE!	0.0004	0.0015	0.0000	0.0000
NOx	0.0589	1.4126	**0.2578**	0.0589	0.2578	#VALUE!	0.0589	0.2578	0.0006	0.0006
VOC	0.0082	0.1977	**0.0361**	0.0082	0.0361	#VALUE!	0.0082	0.0361	0.0001	0.0001
CO	0.0494	1.1866	**0.2165**	0.0494	0.2165	#VALUE!	0.0494	0.2165	0.0005	0.0005
LEAD	0.0000	0.0000	**0.0000**	0.0000	0.0000	#VALUE!	0.0000	0.0000	0.0000	0.0000

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POINT ID: Armature/Stator Process
Young Brothers Bake Oven

MDR (T/hr): 0.025
YEARLY PROD (T/yr): 0.33

STACK ID (DIAM:HEIGHT): (0.5': 18')
FLOWRATE (ACFM): 500
Ts(°F): 250

CNTRL DEV: none

PERMITTED OPERATING HRS: **8760** hr/yr

SCC NO. 3-04-002-14			POTENTIAL EMISSIONS						COMPANY ACTUAL	
			BEFORE CONTROLS			AFTER CONTROLS			BEFORE	AFTER
POLLUTANT	EF(LB/T)	CE (%)	(lbs/hr)	(lbs/day)	(TPY)	(lbs/hr)	(TPY)	(gr/dscf)	CONTROLS	CONTROLS
PM	5.1	0	0.1275	3.0600	0.5585	0.1275	0.5585	0.0399	0.0008	0.0008
PM10	5.1	0	0.1275	3.0600	0.5585	0.1275	0.5585	0.0399	0.0008	0.0008
SOx	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0.0000	0.0000
NOx	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0.0000	0.0000
VOC	0.2	0	0.0050	0.1200	0.0219	0.0050	0.0219	N/A	0.0000	0.0000
CO	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0.0000	0.0000
LEAD	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0.0000	0.0000

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POINT ID: Armature/Stator Process
Young Brothers Bake Oven
in-process fuel use

MDC (mmBtu/hr): 0.618
MDR (mmcft/hr): 0.0006

HEAT CONTENT (Btu/cft): 1050
QTY BURNED (mmcft/yr): 0.013

STACK ID (DIAM:HEIGHT): (0.5': 18')
FLOWRATE (ACFM): 500
Ts(°F): 250

PERMITTED OPERATING HRS: **8760** hr/yr

SCC NO. 3-90-006-89			POTENTIAL EMISSIONS						COMPANY ACTUAL	
			BEFORE CONTROLS			AFTER CONTROLS			BEFORE	AFTER
POLLUTANT	EF(lbs/mmcft)	CE (%)	(lbs/hr)	(lbs/day)	(TPY)	(lbs/hr)	(TPY)	(gr/dscf)	CONTROLS	CONTROLS
PM	7.6	0	0.0045	0.1074	0.0196	0.0045	0.0196	0.0014	0.0000	0.0000
PM10	7.6	0	0.0045	0.1074	0.0196	0.0045	0.0196	0.0014	0.0000	0.0000
SOx	0.6	0	0.0004	0.0085	0.0015	0.0004	0.0015	N/A	0.0000	0.0000
NOx	100	0	0.0589	1.4126	0.2578	0.0589	0.2578	N/A	0.0006	0.0006
VOC	5.5	0	0.0032	0.0777	0.0142	0.0032	0.0142	N/A	0.0000	0.0000
CO	84	0	0.0494	1.1866	0.2165	0.0494	0.2165	N/A	0.0005	0.0005
LEAD	0.0005	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0.0000	0.0000

Armature/Stator Process **Point Totals**
Young Brothers Bake Oven

Hammond Air Quality Control Ordinance #3522 (as amended)

	POTENTIAL EMISSIONS						ALLOWABLE		COMPANY ACTUAL	
	BEFORE CONTROLS			AFTER CONTROLS					BEFORE	AFTER
POLLUTANT	(lbs/hr)	(lbs/day)	**(TPY)**	(lbs/hr)	(TPY)	(gr/dscf)	(lbs/hr)	(TPY)	CONTROLS	CONTROLS
PM	0.1320	3.1674	0.5780	0.1320	0.5780	0.0413	0.1320	0.5780	0.0009	0.0009
PM10	0.1320	3.1674	0.5780	0.1320	0.5780	0.0413	0.1320	0.5780	0.0009	0.0009
SOx	0.0004	0.0085	0.0015	0.0004	0.0015	#VALUE!	0.0004	0.0015	0.0000	0.0000
NOx	0.0589	1.4126	0.2578	0.0589	0.2578	#VALUE!	0.0589	0.2578	0.0006	0.0006
VOC	0.0082	0.1977	0.0361	0.0082	0.0361	#VALUE!	0.0082	0.0361	0.0001	0.0001
CO	0.0494	1.1866	0.2165	0.0494	0.2165	#VALUE!	0.0494	0.2165	0.0005	0.0005
LEAD	0.0000	0.0000	0.0000	0.0000	0.0000	#VALUE!	0.0000	0.0000	0.0000	0.0000

****

POINT ID: Mica Lastic Process
IHEI Curing Oven

MDR (T/hr): 0.06
YEARLY PROD (T/yr): 0.00

STACK ID (DIAM:HEIGHT): (1.5': 22')
FLOWRATE (ACFM): 600
Ts(°F): 180

CNTRL DEV: none

PERMITTED OPERATING HRS: **8760** hr/yr

SCC NO. 3-04-002-14

POLLUTANT	EF(LB/T)	CE (%)	POTENTIAL EMISSIONS BEFORE CONTROLS (lbs/hr)	(lbs/day)	(TPY)	AFTER CONTROLS (lbs/hr)	(TPY)	(gr/dscf)	COMPANY ACTUAL BEFORE CONTROLS	AFTER CONTROLS
PM	5.1	0	0.3060	7.3440	1.3403	0.3060	1.3403	0.0718	0.0000	0.0000
PM10	5.1	0	0.3060	7.3440	1.3403	0.3060	1.3403	0.0718	0.0000	0.0000
SOx	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0.0000	0.0000
NOx	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0.0000	0.0000
VOC	0.2	0	0.0120	0.2880	0.0526	0.0120	0.0526	N/A	0.0000	0.0000
CO	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0.0000	0.0000
LEAD	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0.0000	0.0000

****

POINT ID: Mica Lastic Process
IHEI Curing Oven
in-process fuel use

MDC (mmBtu/hr): 1.6
MDR (mmcft/hr): 0.0015

HEAT CONTENT (Btu/cft): 1050
QTY BURNED (mmcft/yr): 0.000

STACK ID (DIAM:HEIGHT): (1.5': 22')
FLOWRATE (ACFM): 600
Ts(°F): 180

PERMITTED OPERATING HRS: **8760** hr/yr

SCC NO. 3-90-006-89

POLLUTANT	EF(lbs/mmcft)	CE (%)	POTENTIAL EMISSIONS BEFORE CONTROLS (lbs/hr)	(lbs/day)	(TPY)	AFTER CONTROLS (lbs/hr)	(TPY)	(gr/dscf)	COMPANY ACTUAL BEFORE CONTROLS	AFTER CONTROLS
PM	7.6	0	0.0116	0.2779	0.0507	0.0116	0.0507	0.0027	0.0000	0.0000
PM10	7.6	0	0.0116	0.2779	0.0507	0.0116	0.0507	0.0027	0.0000	0.0000
SOx	0.6	0	0.0009	0.0219	0.0040	0.0009	0.0040	N/A	0.0000	0.0000
NOx	100	0	0.1524	3.6571	0.6674	0.1524	0.6674	N/A	0.0000	0.0000
VOC	5.5	0	0.0084	0.2011	0.0367	0.0084	0.0367	N/A	0.0000	0.0000
CO	84	0	0.1280	3.0720	0.5606	0.1280	0.5606	N/A	0.0000	0.0000
LEAD	0.0005	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0.0000	0.0000

Mica Lastic Process — **Point Totals**
IHEI Curing Oven

Hammond Air Quality Control Ordinance #3522 (as amended)

POLLUTANT	POTENTIAL EMISSIONS BEFORE CONTROLS (lbs/hr)	(lbs/day)	**(TPY)**	AFTER CONTROLS (lbs/hr)	(TPY)	(gr/dscf)	ALLOWABLE (lbs/hr)	(TPY)	COMPANY ACTUAL BEFORE CONTROLS	AFTER CONTROLS
PM	0.3176	7.6219	**1.3910**	0.3176	1.3910	0.0746	0.3176	1.3910	0.0000	0.0000
PM10	0.3176	7.6219	**1.3910**	0.3176	1.3910	0.0746	0.3176	1.3910	0.0000	0.0000
SOx	0.0009	0.0219	**0.0040**	0.0009	0.0040	#VALUE!	0.0009	0.0040	0.0000	0.0000
NOx	0.1524	3.6571	**0.6674**	0.1524	0.6674	#VALUE!	0.1524	0.6674	0.0000	0.0000
VOC	0.0204	0.4891	**0.0893**	0.0204	0.0893	#VALUE!	0.0204	0.0893	0.0000	0.0000
CO	0.1280	3.0720	**0.5606**	0.1280	0.5606	#VALUE!	0.1280	0.5606	0.0000	0.0000
LEAD	0.0000	0.0000	**0.0000**	0.0000	0.0000	#VALUE!	0.0000	0.0000	0.0000	0.0000

****

POINT ID: Tinning Pot

MDR (T/hr): 0.0375
YEARLY PROD (T/yr): 0.12

STACK ID (DIAM:HEIGHT): (2': 28')
FLOWRATE (ACFM): 2200
Ts(°F): 85

CNTRL DEV: Torit Dust Collector

PERMITTED OPERATING HRS: **8760** hr/yr

(AP-42, Table 7.17-1)
SCC NO. 3-04-040-01

			POTENTIAL EMISSIONS						COMPANY ACTUAL	
			BEFORE CONTROLS			AFTER CONTROLS			BEFORE	AFTER
POLLUTANT	EF(LB/T)	CE (%)	(lbs/hr)	(lbs/day)	(TPY)	(lbs/hr)	(TPY)	(gr/dscf)	CONTROLS	CONTROLS
PM	0.6	0.9	0.0225	0.5400	0.0986	0.0023	0.0099	0.0001	0.0000	0.0000
PM10	0.36	0.9	0.0135	0.3240	0.0591	0.0014	0.0059	0.0001	0.0000	0.0000
SOx	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0.0000	0.0000
NOx	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0.0000	0.0000
VOC	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0.0000	0.0000
CO	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0.0000	0.0000
LEAD	0.5	0.9	0.0188	0.4500	0.0821	0.0019	0.0082	N/A	0.0000	0.0000

****

POINT ID: Tinning Pot

MDC (mmBtu/hr): 0.52
MDR (mmcft/hr): 0.00052

HEAT CONTENT (Btu/cft): 1000
QTY BURNED (mmcft/yr): 0.003

STACK ID (DIAM:HEIGHT): (1.5': 22')
FLOWRATE (ACFM): 600
Ts(°F): 180

in-process fuel use

PERMITTED OPERATING HRS: **8760** hr/yr

SCC NO. 3-90-006-89

			POTENTIAL EMISSIONS						COMPANY ACTUAL	
			BEFORE CONTROLS			AFTER CONTROLS			BEFORE	AFTER
POLLUTANT	EF(lbs/mmcft)	CE (%)	(lbs/hr)	(lbs/day)	(TPY)	(lbs/hr)	(TPY)	(gr/dscf)	CONTROLS	CONTROLS
PM	7.6	0.9	0.0040	0.0948	0.0173	0.0004	0.0017	0.0001	0.0000	0.0000
PM10	7.6	0.9	0.0040	0.0948	0.0173	0.0004	0.0017	0.0001	0.0000	0.0000
SOx	0.6	0	0.0003	0.0075	0.0014	0.0003	0.0014	N/A	0.0000	0.0000
NOx	100	0	0.0520	1.2480	0.2278	0.0520	0.2278	N/A	0.0001	0.0001
VOC	5.5	0	0.0029	0.0686	0.0125	0.0029	0.0125	N/A	0.0000	0.0000
CO	84	0	0.0437	1.0483	0.1913	0.0437	0.1913	N/A	0.0001	0.0001
LEAD	0.0005	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0.0000	0.0000

Tinning Pot & fuel use — **Point Totals**

Hammond Air Quality Control Ordinance #3522 (as amended)

			POTENTIAL EMISSIONS						ALLOWABLE		COMPANY ACTUAL	
			BEFORE CONTROLS			AFTER CONTROLS					BEFORE	AFTER
POLLUTANT	(lbs/hr)	(lbs/day)	**(TPY)**	(lbs/hr)	(TPY)	(gr/dscf)	(lbs/hr)	(TPY)	CONTROLS	CONTROLS
PM	0.0265	0.6348	**0.1159**	0.0026	0.0116	0.0002	0.0026	0.0116	0.0000	0.0000
PM10	0.0175	0.4188	**0.0764**	0.0017	0.0076	0.0002	0.0017	0.0076	0.0000	0.0000
SOx	0.0003	0.0075	**0.0014**	0.0003	0.0014	#VALUE!	0.0003	0.0014	0.0000	0.0000
NOx	0.0520	1.2480	**0.2278**	0.0520	0.2278	#VALUE!	0.0520	0.2278	0.0001	0.0001
VOC	0.0029	0.0686	**0.0125**	0.0029	0.0125	#VALUE!	0.0029	0.0125	0.0000	0.0000
CO	0.0437	1.0483	**0.1913**	0.0437	0.1913	#VALUE!	0.0437	0.1913	0.0001	0.0001
LEAD	0.0188	0.4500	**0.0821**	0.0019	0.0082	#VALUE!	0.0019	0.0082	0.0000	0.0000

****

POINT ID: Combined Varnish/Shellac Used for Field Coil Production and Armature/Stator Processes

MDR (gal/hr): 0.176
YEARLY PROD (gal/yr): 0

STACK ID (DIAM:HEIGHT): none
FLOWRATE (ACFM): none
Ts(°F): none

Two (2) Dip Tanks
150 and 200 gallon

CNTRL DEV: None

PERMITTED OPERATING HRS: **8760** hr/yr

SCC NO. 4-02-003-10			POTENTIAL EMISSIONS						ALLOWABLE		COMPANY ACTUAL	
			BEFORE CONTROLS			AFTER CONTROLS					BEFORE	AFTER
POLLUTANT	EF(LB/T)	CE (%)	(lbs/hr)	(lbs/day)	(TPY)	(lbs/hr)	(TPY)	(gr/dscf)	(lbs/hr)	(TPY)	CONTROLS	CONTROLS
PM	0.6	0	0.1056	2.5344	0.4625	0.1056	0.4625	N/A	0.1056	0.4625	0.0000	0.0000
PM10	0.3	0	0.0528	1.2672	0.2313	0.0528	0.2313	N/A	0.0528	0.2313	0.0000	0.0000
SOx	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0.0000	0.0000	0.0000	0.0000
NOx	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0.0000	0.0000	0.0000	0.0000
VOC	3.5	0	0.6160	14.7840	2.6981	0.6160	2.6981	N/A	0.6160	2.6981	0.0000	0.0000
CO	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0.0000	0.0000	0.0000	0.0000
LEAD	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0.0000	0.0000	0.0000	0.0000

Maximum Design Rate based on varnish replacement (Dip Tanks) of < 40 gallons in any week
Yearly Production based on actual purchases of 55 gallon drums (777 Supercure)
Two (2) Dip Tanks -150 and 200 gallon capacities

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Plant Totals

Hammond Air Quality Control Ordinance #3522 (as amended)

	POTENTIAL EMISSIONS						ALLOWABLE		COMPANY ACTUAL	
	BEFORE CONTROLS			AFTER CONTROLS					BEFORE	AFTER
POLLUTANT	(lbs/hr)	(lbs/day)	**(TPY)**	(lbs/hr)	(TPY)	(gr/dscf)	(lbs/hr)	(TPY)	CONTROLS	CONTROLS
PM	0.7470	17.9279	**3.2718**	0.7232	3.1676	#VALUE!	0.7232	3.1676	0.0041	0.0040
PM10	0.6852	16.4447	**3.0012**	0.6695	2.9324	#VALUE!	0.6695	2.9324	0.0041	0.0040
SOx	0.1113	2.6713	**0.4875**	0.1113	0.4875	#VALUE!	0.1113	0.4875	0.0092	0.0092
NOx	0.4318	10.3628	**1.8912**	0.4318	1.8912	#VALUE!	0.4318	1.8912	0.0032	0.0032
VOC	0.6661	15.9853	**2.9173**	0.6661	2.9173	#VALUE!	0.6661	2.9173	0.0006	0.0006
CO	0.3591	8.6174	**1.5727**	0.3591	1.5727	#VALUE!	0.3591	1.5727	0.0024	0.0024
LEAD	0.0188	0.4501	**0.0821**	0.0019	0.0082	#VALUE!	0.0019	0.0082	0.0000	0.0000